Distr.
GENERAL

A/CONF.172/8/Add.1
26 April 1994

Original: ENGLISH

Item 10 (b) of the provisional agenda*

NATURAL DISASTER REDUCTION: HAZARD RESISTANT STRUCTURES

Technical session

Addendum

What science and technology can do for natural disaster reduction

Summary of introductory statement by Sir James Lighthill, Chairman, Special Committee for the International Decade on Natural Disaster Reduction, International Council of Scientific Unions (ICSU)

1. Science and technology have important parts to play in the International Decade on Natural Disaster Reduction (IDNDR), particularly in improving the timeliness and reliability of forecasts of natural disasters, refining assessments of risk of such disasters, and (above all) enhancing preparedness wherever the risk is substantial. Preparedness includes the promotion of public awareness of risk, and also of the action required in response to disaster forecasts; however, it is by means of hazard resistant structures that the greatest saving of life and of valued property can be achieved.

2. All of the work of the Special Committee of ICSU is devoted to strengthening the contribution of science and technology to disaster forecasting, risk assessment and the enhancement of preparedness, for example, in:

(a) The joint ICSU/World Meteorological Organization (WMO) programme on tropical cyclone disasters - aimed at improving forecasting of, and preparedness against, extreme wind loads and storm-surge flooding caused by tropical cyclones (see technical committee session F on warning systems);

---

* A/CONF.172/1

(b) The Global Seismic Hazard Assessment Programme - aimed at achieving, through a regionally coordinated approach to seismic hazard construction, updated national assessments of earthquake risk in order that high priority areas for earthquake-resistant construction can be identified;

(c) The WFEO/UITA project on design and construction of buildings to withstand natural disasters - aimed at using case-studies to identify key actions needed to ensure practical implementation of the principles of disaster-resistant construction.

Another two projects of the Special Committee of ICSU are dedicated to the promotion of public awareness.

3. Several different types of hazard resistant structure will be described. They include shelters, suitable for use where reliable disaster forecasting is available (e.g., for tropical cyclones in the Bay of Bengal), and also general-purpose structures able to give protection even when (as with most earthquakes) no disaster warning is achievable. Attention is directed at problems of how to attain adequate hazard resistance in new construction (whether of an engineered or non-engineered type) and of how to improve hazard resistance in existing structures so that risks to their inhabitants are greatly mitigated. Special attention is given to considering implications for national policy makers, as well as for all those engaged in the various industries concerned with construction.